

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-7 are currently pending in this application. Claims 1 and 5 are independent. The remaining claims depend, directly or indirectly, from claims 1 and 5.

Drawings

Applicant respectfully requests that the Examiner accept the drawings filed in response to the Office Action of December 3, 2003 and withdraw any objections to the drawings.

Acknowledgement of Priority

In the response to the Office Action dated July 28, 2004, which was filed October 27, 2004, Applicant amended the specification to claim priority to French Patent Application No. 99/00858, filed on January 27, 1999. Applicant again respectfully requests acknowledgement of this claim for priority.

Rejections under 35 U.S.C. § 103

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,422,435 ("Takiar"). This rejection is respectfully traversed.

The claimed invention is directed toward an integrated circuit (IC) device, which includes an active chip and a complementary chip attached to the active chip. The complementary chip includes a plurality of recesses, where each recess extends, *from above a contact terminal to a side surface of the complementary chip* (See Specification, page 3 and

Figure 3). With the present invention, it is possible to provide an IC device permitting the manufacturing of an electronic unit for smart cards having a reduced thickness, while maintaining sufficient mechanical strength of the electronic unit. The plurality of recesses in the complementary chip, and the location of these recesses, provide the active chip with electrical connection as well as maintain the electronic unit of reduced thickness.

In contrast to the claimed invention, Takiar discloses a method of manufacturing a stacked multi-chip module. Specifically, Takiar discloses a semiconductor die having substantially parallel opposing first and second surfaces and at least one electrical contact mounted on the first surface (*See Takiar, Abstract*).

Turning to the rejection of the claims, the Examiner relies on Takiar as disclosing “a plurality of recesses, each recess extending through the whole thickness of the complementary chip and extending from above a contact terminal to the side surface.” The Applicant respectfully disagrees with this assertion. Specifically, the recesses of the claimed invention are depressions in the complementary chip that extend from the contact terminal (36 in Figure 3) to the side surface of the complimentary layer (48 in Figure 3). Thus, it is clear from Figure 3 and the description on page 5 of the Specification, that recesses are not holes in the complementary layer, but rather, recesses are depressions that allow the complementary layer to reduce the overall thickness of the IC device.

The cited portion of Takair, on the other hand, discloses that a

“second element 214 has holes 222 and
224 extending through the second element
214 from the first surface 226 to the second
surface 228.”

Thus, while the recesses of the claimed invention are depressions within the complementary layer, the holes disclosed in Takiar are open space that goes completely through the second element from one surface to another surface. Further, in addition to failing to disclose recesses, Takiar also fails to disclose that recesses extend from a *contact terminal* to the side surface of the complementary layer. Specifically, Takiar discloses that the holes extend from one *surface* to another *surface*, and go entirely through the second element (214). Comparing Figure 3 of the present invention and Figure 11 of Takiar, it is particularly clear that the holes (222, 224) of Takiar do not extend from above a contact terminal to a side surface. In fact, there is no contact terminal in Takiar from which recesses extend, and instead of having the holes extend to the side surface of element 214 of Takiar, the hole goes through element 214 to an entirely different surface. Therefore, the holes disclosed in Takair and the recesses of the claimed invention are distinct.

In view of the above, independent claim 1 is patentable over Takiar. Further, dependent claims 2-3 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Takiar in view of U.S. Patent No. 5,155,068 ("Tada"). This rejection is respectfully traversed.

As described above, Takiar fails to disclose the limitations of independent claims 1 or render claim 1 obvious. Further, Tada fails to supply that which Takiar lacks. Specifically, Tada fails to disclose or suggest a plurality of recesses in the complementary layer that extend from above a contact terminal to the side surface of the complementary layer.

In view of the above, independent claim 1 is patentable over Takiar and Tada, whether considered separately or in combination. Dependent claim 4 is patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 5-7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Takiar in view of admitted prior art (APA). This rejection is respectfully traversed.

As described above, Takiar fails to disclose the limitations of independent claims 1 or render claim 1 obvious. Further, APA fails to supply that which Takiar lacks. Specifically, APA fails to disclose or suggest a plurality of recesses in the complementary layer that extend from above a contact terminal to the side surface of the complementary layer.

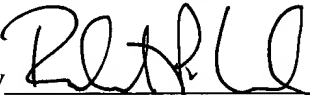
In view of the above, independent claim 1 is patentable over Takiar and APA, whether considered separately or in combination. Independent claim 5 includes similar allowable subject matter as claim 1 (*i.e.*, a plurality of recesses that extend from above a contact terminal to the side surface of the complementary layer). Therefore, dependent claims 6-7, which depend from claim 5, are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 09669/005001).

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Respectfully submitted,

By 

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